

**SYSTEM AND METHOD FOR DETERMINING NETWORK DISCRETE
UTILIZATION**

Abstract of the Disclosure

5 To evaluate a communications network, a plurality of
network evaluation signals, or probative test packets, are
selectively sent and received through the network.
Responsive to these evaluation signals, network evaluation
parameters are determined and stored. Queuing theory
10 analysis, responsive to these parameters, determines the
response time and throughput characteristics, including
discrete capacity, utilization and performance, of the
network. Calculation of the value of the network's discrete
utilization involves the measurement of the network's
15 average delay waiting for service, measurement of the
network's standard deviation of delay waiting for service,
calculation of discrete utilization from the ratio of these
observed values, and then refinement of that calculation by
proportionate factoring in instances of dropped samples as
20 cases of one hundred percent utilization to arrive at a
final figure for percent of network discrete utilization.